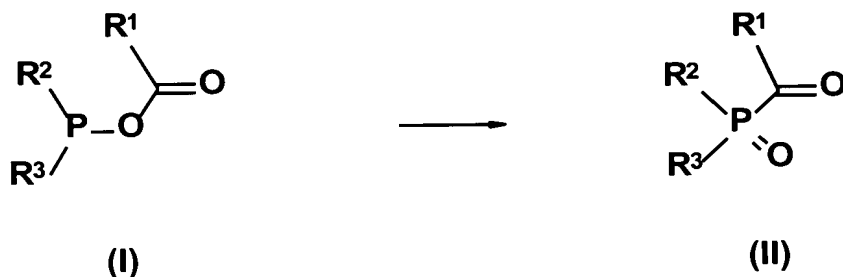


## IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for the preparation of an aromatic acylphosphine ~~oxides~~ oxide (II), which comprises converting an aromatic carboxyphosphine ~~carboxyphosphines~~ (I) to the said acylphosphine oxide ~~oxides~~ (II),



wherein ~~in which~~

R<sup>1</sup> is C<sub>6</sub>–C<sub>12</sub>-aryl or a five- to six-membered aromatic heterocycle having oxygen, nitrogen and/or sulfur atoms, ~~where said radicals can in each case be~~ optionally substituted by aryl, alkyl, aryloxy, alkyloxy, heteroatoms, and/or heterocycles, and

R<sup>2</sup> and R<sup>3</sup> independently of one another are C<sub>1</sub>–C<sub>18</sub>-alkyl, C<sub>2</sub>–C<sub>18</sub>-alkyl optionally interrupted by one or more oxygen and/or sulfur atoms and/or one or more substituted or unsubstituted imino groups, C<sub>2</sub>–C<sub>18</sub>-alkenyl, C<sub>6</sub>–C<sub>12</sub>-aryl, C<sub>5</sub>–C<sub>12</sub>-cycloalkyl, C<sub>1</sub>–C<sub>18</sub>-alkoxy or a five- to six-membered heterocycle having oxygen, nitrogen and/or sulfur atoms, ~~where said radicals can in each case be~~ wherein said R<sup>2</sup> and R<sup>3</sup> are optionally substituted by aryl, alkyl, aryloxy, alkyloxy, heteroatoms and/or heterocycles, ~~also~~ a metal, a group –O<sup>+</sup>cation<sup>+</sup> or halogen.

Claim 2 (Original): A process as claimed in claim 1, which is carried out in the absence of a catalyst at a temperature above 100°C or in the presence of a catalyst above

80°C.

Claim 3 (Original): A process as claimed in claim 2, wherein 5 to 100 mol% catalyst, based on the starting material (I), are used.

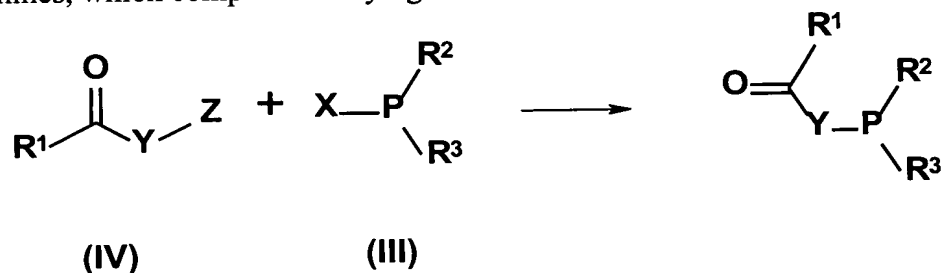
Claim 4 (Currently Amended): A process as claimed in claim 3, wherein the catalyst is ~~chosen~~ selected from the group consisting of Friedel-Crafts catalysts, Lewis acidic ionic liquids, nucleophilic catalysts, acid chlorides, acid anhydrides, alkyl halides, halogens, Arbusov catalysts, catalysts with simultaneous Lewis-acidic and Lewis-basic properties and transition metals with high affinity to phosphorus.

Claim 5 (Currently Amended): A process as claimed in claim 1, ~~any of the preceding claims~~, wherein R<sup>1</sup> is ~~chosen~~ selected from the group ~~consisting~~ consisting of phenyl, tolyl, xylyl,  $\alpha$ -naphthyl,  $\beta$ -naphthyl, 2-, 3- or 4-chlorophenyl, 2,6- or 2,4-dichlorophenyl, 2,4,6-trichlorophenyl, 2-, 3- or 4-methylphenyl, 2,6- or 2,4-dimethylphenyl, 2,4,6-trimethylphenyl, 2-, 3- or 4-ethylphenyl, 2,6- or 2,4-diethylphenyl, 2-, 3- or 4-isopropylphenyl, 2-, 3- or 4-tert-butylphenyl, 2-, 3- or 4-methoxyphenyl, 2,6- or 2,4-dimethoxyphenyl, 2,6- or 2,4-diethoxyphenyl, methylnaphthyl, 2,6-dimethylphenyl, 2,4,6-trimethylphenyl, 2,6-dimethoxyphenyl, 2,6-dichlorophenyl, 4-bromophenyl, 2- or 4-nitrophenyl, 2,4- or 2,6-dinitrophenyl, 4-dimethylaminophenyl, 4-acetylphenyl, 2- or 3-furyl, 2- or 3-thiophenyl, 2- or 3-pyrryl and dimethylpyrryl.

Claim 6 (Currently Amended): A process as claimed in claim 1, ~~any of the preceding claims~~, wherein R<sup>2</sup> and R<sup>3</sup> independently of one another are ~~chosen~~ selected from the group consisting of 2,4,4-trimethylpentyl, benzyl, p-chlorobenzyl, 2,4-dichlorobenzyl, p-

methoxybenzyl, methoxy, ethoxy, n-propyloxy, isopropyloxy, n-butyloxy, isobutyloxy, sec-butyloxy, tert-butyloxy, 6-hydroxy-1,4-dioxohexyl, 9-hydroxy-1,4,7-trioxononyl, 12-hydroxy-1,4,7,10-tetraoxododecyl, 6-methoxy-1,4-dioxohexyl, 9-methoxy-1,4,7-trioxononyl, 12-methoxy-1,4,7,10-tetraoxododecyl, 6-ethoxy-1,4-dioxohexyl, 9-ethoxy-1,4,7-trioxononyl, 12-ethoxy-1,4,7,10-tetraoxododecyl, 8-hydroxy-1,5-dioxooctyl, 12-hydroxy-1,5,9-trioxooctyl, 16-hydroxy-1,5,9,13-tetraoxohexadecyl, 10-hydroxy-1,6-dioxodecyl, 15-hydroxy-1,6,11-trioxopentadecyl, vinyl, 1-propenyl, allyl, methallyl, 1,1-dimethylallyl, 2-butenyl, 2-hexenyl, 2-phenylvinyl, 2-methoxyvinyl, 2-ethoxyvinyl, 2-chlorovinyl, phenyl, tolyl, xylyl,  $\alpha$ -naphthyl,  $\beta$ -naphthyl, 4-diphenyl, 2-, 3- or 4-chlorophenyl, 2,4- or 2,6-dichlorophenyl, 2,4,6-trichlorophenyl, 2-, 3- or 4-methylphenyl, 2,4- or 2,6-dimethylphenyl, 2,4,6-trimethylphenyl, 2-, 3- or 4-ethylphenyl, 2,4- or 2,6-diethylphenyl, 2-, 3- or 4-isopropylphenyl, 2-, 3- or 4-tert-butylphenyl, 2-, 3- or 4-methoxyphenyl, 2,4- or 2,6-dimethoxyphenyl, 2-, 3- or 4-ethoxyphenyl, methylnaphthyl, chloronaphthyl, ethoxynaphthyl, 2,6-dimethylphenyl, 2,4,6-trimethylphenyl, 2,4- or 2,6-dimethoxyphenyl, 2,4- or 2,6-dichlorophenyl, 2- or 4-nitrophenyl, 2,4- or 2,6-dinitrophenyl, 4-dimethylaminophenyl, 4-acetylphenyl, 2,4,6-trimethylbenzoyl, 2,6-dimethoxybenzoyl and 2,6-dichlorobenzoyl.

Claim 7 (Currently Amended): A process for the preparation of a carboxyphosphine ~~carboxyphosphines~~, which comprises carrying out a conversion according to



in which

$\text{R}^1$ ,  $\text{R}^2$  and  $\text{R}^3$  have the meanings given in claim 1,

wherein

X is halogen, pseudohalogen, un-, mono- or disubstituted nitrogen or  
sulfuryloxy,

Y is oxygen, sulfur, un- or monosubstituted nitrogen and

Z is hydrogen, or an equivalent of a cation

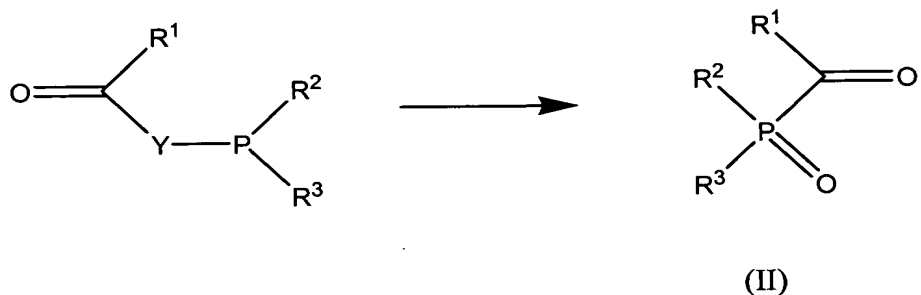
at a temperature between 50 and 100°C.

Claim 8 (Original): A process as claimed in claim 7, wherein the reaction is carried out in the presence of an auxiliary base which, protonated as a salt, forms  $R^1(CO)Y^-$  with the anionic compounds of (IV), or a salt with a melting point below 160°C with  $X^-$ .

Claim 9 (Currently Amended): A process as claimed in claim 8, wherein the auxiliary base is ~~chosen~~ selected from the group consisting of 3-chloropyridine, 4-dimethylaminopyridine, 2-ethyl-4-aminopyridine, 2-methylpyridine ( $\alpha$ -picoline), 3-methylpyridine ( $\beta$ -picoline), 4-methylpyridine ( $\gamma$ -picoline), 2-ethylpyridine, 2-ethyl-6-methylpyridine, quinoline, isoquinoline, pyridine, 1-C<sub>1</sub>-C<sub>4</sub>-alkylimidazole, 1-methylimidazole, 1,2-dimethylimidazole, 1-n-butylimidazole, 1,4,5-trimethylimidazole, 1,4-dimethylimidazole, imidazole, 2-methylimidazole, 1-butyl-2-methylimidazole, 4-methylimidazole, 1-n-pentylimidazole, 1-n-hexylimidazole, 1-n-octylimidazole, 1-(2'-aminoethyl)imidazole, 2-ethyl-4-methylimidazole, 1-vinylimidazole, 2-ethylimidazole, 1-(2'-cyanoethyl)imidazole and benzotriazole.

Claim 10 (Currently Amended): ~~The use of carboxyphosphines obtainable by a process as claimed in one of claims 7 to 8~~ A method for the preparation of an acyl phosphine

oxides oxide (II), which comprises converting a carboxyphosphine obtained by said process as claimed in claim 7 to said acylphosphine oxide (II),



as claimed in claim 1.

Claim 11 (Currently Amended): ~~The use of acylphosphine oxides of the formula (II)~~  
~~as in claim 1, obtainable as claimed in any of claims 1 to 6 as~~ A photoinitiator comprising an  
acylphosphine oxide of formula (II) obtained by said process as claimed in claim 1, wherein  
said photoinitiator is capable of initiating a in radiation curing.